IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEAL AND INTERFERENCES

In re the Application of:

TI-11782A

William C. Choate, et al.

Examiner: 6. Barron

Serial No.: 07/456,812

Art Unit: /222

Filed:

December 15, 1989

For:

METHOD AND APPARATUS FOR AIR-TO-AIR AIRCRAFT

RANGING

NOTED

REPLY BRIEF

Honorable Commissioner of Patents and Trademarks

Washington, D.C. 20231

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BROWNING

Dear Sir:

As a result of the Examiner's Answer mailed June 10, 1991, Applicants make the following response.

GROUPING OF CLAIMS

Apparently within the Grouping of Claims section of their Appeal Brief Applicants failed to clearly communicate that:

Claims 1-4 stand or fall together.

Claim 10 stands or falls by itself.

Claim 15 stands or falls by itself.

Claim 17 stands or falls by itself.

Claims 20-24 stand or fall together.

Claim 30 stands or falls by itself.

Claim 35 stands or falls by itself.

Claim 37 stands or falls by itself.

That is what was meant by separating the claims by semicolons rather than commas in this section of the Appeal Brief.

APPLICANTS' RESPONSE TO NEW POINT OF ARGUMENT (37 CFR 1.193(b))

The Examiner defines a suggested level of ordinary skill in the art for the first time in the Examiner's Answer. As has been apparent throughout the prosecution of the present application, the Examiner has confused one skilled in the art of active ranging with one skilled in the art of passive ranging, incorrectly deeming the arts relatively interchangeable.

At a superficial level, one can see how one who does not work in the ranging field might make this assumption. Nevertheless, while the Examiner's statement that "[A]s a reference level a masters degree in electrical engineering with approximately 5 years of experience in <u>radar systems engineering</u> is suggested" (Examiner's Answer, page 4, lines 16-20, emphasis added) may be true for the level of ordinary skill in the art of <u>active</u> ranging, such level of skill would be relatively irrelevant to one who works in passive ranging.

Radar and radar systems are active sensing (ranging) devices and are <u>not</u> passive sensing (ranging) devices. One skilled in active ranging expects active sensors to send out a signal and receive/sense the echo (returning signal) which provides both range and bearing information. One skilled in passive sensing has no such luxury; the passively sensed signal lacks range information. One cannot input such an incomplete signal to a system designed to receive the complete information obtained from an active signal

because the system would not operate. For this reason (missing range information), an active ranging system cannot accept passively sensed information. Thus, one skilled in the passive ranging art must be able to infer the missing information by various means. In fact, a cartography background would be of more use to a person working in passive ranging than the active ranging ("radar systems engineering") background suggested by the Examiner because so much information must be inferred from the received signal, based on knowledge of the framework in which it is received, before it can be further processed.

Respectfully submitted,

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